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a. If letter or memo:

To:
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Title: MONTHLY ACTIVITY REPORT -
ANALYTICAL CHEMISTRY BRANCH -
JANUARY 21, 1970 - FEBRUARY 20, 1970

4. Document Date:
February 26, 1970

c. If publication:

Name:
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5. Summary (2-3 lines indicating the major subject(s) of the document): Report on the routine study of biological samples, water samples and ecological samples; whole body analysis; research on the combined Ra 226, 228, Th 230 and Ac 227; new procedure for the determination of plutonium in soil from the Rocky Flats Fire.

6. Name and telephone number of person completing form: Anjan K. Majumder (208) 525-0206	7. Organization: Lockheed Idaho Technologies Co.	8. Date: MAY, 1995
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HUMAN RADIATION EXPERIMENTS

RECORDS PROVENANCE FORM

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* COLLECTION NAME	ORIGINAL NAME	RESL READING FILES / MONTHLY ACTIVITY REPORTS	
	NEW NAME	RADIOLOGICAL AND ENVIRONMENTAL SCIENCES LABORATORY, FILES OF DOUG CARLSON, DIRECTOR	
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CROSS REFERENCES:

ITEMS OF INTEREST:

* A NEW COLLECTION NAME REPLACED THE ORIGINAL DUE TO
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BOX No. 1, RESL CFA-690, ROOM #102
MONTHLY ACTIVITY REPORTS February 26, 1970
FOLDER ANALYTICAL CHEMISTRY BRANCH
1958 - 1972

George L. Voelz, M.D., Director
Health Services Laboratory

MONTHLY ACTIVITY REPORT - ANALYTICAL CHEMISTRY BRANCH
January 21, 1970 - February 20, 1970

ROUTINE

Biological Samples (urine, feces, soil, etc.)	319
Water Samples (potable, effluent, etc.)	524
Air Dusts (carbon cartridges, filters, etc.)	1,073
Whole Body Counts	83

RESEARCH

Continued research on the Combined Ra 226,228, Th 230, and Ac 227 procedure and the fluorometric determination of Zr using 3,4',7-trihydroxyflavone. Several serious interferences have been eliminated by working in an H_2SO_4 system rather than $HClO_4$.

Electrodeposited oyster samples for alpha spectra; investigated procedure for activation analysis of I 129; drafted a paper on the gross alpha method with procedures described for samples of water, bone-ash, feces, and urine; separated germanium by precipitating it on ferric hydroxide; determined a new alpha absorption correction curve for soils and other environmental samples.

A crash program has been instituted to develop a new procedure for the determination of plutonium in soils resulting from the Rocky Flats Fire.

A lucite tube has been installed on the rotational counter to replace the canvas stretcher so the detectors can be rotated very near the surface of the body. Point sources of Cs 137 and Co 60 have been traced through the GI tract of a human subject to test this improved whole-body counting system. Approximately 40 different measurements were carried out over a 30-hour time period as the source moved through the body. Processing of the data is being done by use of the computer programs OPTION and CONPLOT.

WHOLE BODY COUNTING ACTIVITIES

Whole body counts at the Laboratory were as follows: 34 termination, 43 routine, 5 others.

Claude W. Sill, Chief
Analytical Chemistry Branch
Health Services Laboratory